



**Project name:** Mendocino Solar Canopy Project

**Transit agency:** Mendocino Transit Authority

**Location:** Ukiah, California

**TIGGER goal:** Energy reduction

**FTA region number:** IX

**Award amount:** \$470,000

**Congressional district:** CA-1

**Funding mechanism:** Appropriations

## Mendocino Transit Authority Taps into Energy from the Sun

The Mendocino Transit Authority (MTA) is doing its part to reduce grid-based electricity consumption. MTA's innovative Facility Solarization and Modernization Program features two photovoltaic (PV) projects—the Maintenance Facility Project and the Solar Canopy Project—that will enable the transit agency to slash its use of grid-based electricity by 91% by tapping into energy from the sun.

### Maintenance Facility Project

The first project—the Maintenance Facility Project—is currently under construction. A roof-mounted PV system atop MTA's new four-bay maintenance shop will generate enough electricity to operate the shop. Primary funding for this project was provided by the Federal Transit Administration's State of Good Repair Program along with California's Proposition 1B Public Transportation Modernization, Improvement, and Service Enhancement Account.



### The Mendocino Transit

**Authority** has provided public transit services for California's Mendocino County since 1976. MTA's service area encompasses about 2,800 square miles and features a diverse system of long distance, commuter, and local fixed routes, plus two dial-a-rides and two flex routes. The transit agency provides services to about 422,000 passengers a year and its 36 vehicles, most of which are equipped with bicycle racks, travel more than 881,000 miles a year. MTA is composed of four operating divisions in Point Arena, Fort Bragg, Willits, and Ukiah.

## Solar Canopy Project

Construction of the second project—the Solar Canopy Project—will begin in mid-2012. This TIGGER-funded project features a 107-kW PV system that will produce the same amount of electricity on an annual basis as required by the adjacent administrative and operations building.

Because the amount of electricity a PV system produces varies with daily and seasonal insolation rates, MTA anticipates establishing a net-metering arrangement with local utility Pacific Gas & Electric to accommodate these variations while meeting the electricity needs of the building. This net-metering arrangement will allow MTA to sell power to the grid when the PV system produces more energy than the facility uses, and to buy power from the grid when it doesn't.

In addition to producing renewable electricity, the canopy system will provide a protected parking area for MTA's fleet vehicles. Protecting the vehicles from heat, frost, and rain will reduce the time and cost associated with pre-trip inspections and routines—the canopy will offer shade, reducing the need for air conditioning, and will also decrease the incidence of windshield ice.

Finally, locating the PV system on top of the canopy structure requires no additional footprint space.

## Green Vehicle Purchases

The Solar Canopy Project aligns with MTA's shift toward acquiring hybrid vehicles now, with the intention of purchasing electric vehicles in the future. The additional capacity provided by the PV system, which has an expected lifespan of 35 years, can be used to charge the batteries of plug-in hybrid electric and all-electric vehicles.

### Impact:

MTA's two new photovoltaic projects will enable the transit agency to generate its own renewable electricity and slash its use of grid-based electricity by 91%.

### About TIGGER

**The Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) Program** was established in 2009 by the U.S. Department of Transportation's Federal Transit Administration (FTA). Designed to reduce energy use and greenhouse gas emissions in transit agencies around the country, the TIGGER Program made funds available for capital investments that would reduce greenhouse gas emissions or lower the energy use of public transportation systems. An initial \$100 million in American Recovery and Reinvestment Act grants funded 43 competitively-selected transit projects. In 2010, the FTA provided an additional \$75 million in grants to fund 27 new TIGGER projects. These 70 projects are employing a variety of technologies to meet the program goals, including solar installations, building efficiency improvements, wind technology, wayside energy storage for rail, and purchase of more efficient buses. In fiscal year 2011, FTA provided an additional \$49.9 million to continue the program.

### For More Information

Mendocino Transit Authority:  
[www.4mta.org](http://www.4mta.org)

FTA TIGGER:  
[www.fta.dot.gov/TIGGER](http://www.fta.dot.gov/TIGGER)



U.S. Department of Transportation  
Federal Transit Administration  
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TIGGER FS - CA-88-0003 - January 2012